Restoration Administrator Flow Recommendation

To: Ali Forsythe, Chad Moore, Emily Thomas, Elizabeth Vasquez
CC: Michael Jackson, Jerry Herman, Rufino Gonzalez, Doug Obegi, Steve Ottemoeller, Jeff Payne, TAC
Date: June 8, 2017
From: Tom Johnson, Restoration Administrator
Subject: Updated Recommendations for 2017 Restoration Flows

The following is an updated recommendation by the Restoration Administrator (RA) for 2017 Restoration Flows.

Background

My Restoration Flow Recommendation of April 21, 2017 was approved by Reclamation on April 25, 2017 as *"…consistent with the Settlement, Legislation, SJRRP Water Rights Order, and Restoration Flow Guidelines."* On June 3, 2017 you informed me via email of changed conditions, including concern that releasing the full recommendation of 300 cfs below Sack Dam may possibly impact South-of-Delta contractors. *"After evaluation, we believe that an immediate flood release of 100 cfs past Sack Dam would be a reasonable action that would achieve one of your primary goals articulated in your flow recommendation and move closer to your flow target of 300 cfs at Sack Dam. In following your flow recommendation, this would be reduced to 45 cfs on July 1."*

I interpret this as a revision to your April 25th approval of the Restoration Flow Recommendation; there is now a flood control release limitation on the quantity of flow past Sack Dam. The Settlement and the Restoration Flow Guidelines (RFG's) provide for Flood Control Releases and Restoration Flows serving common purpose; however this common purpose is only served by flood control releases providing benefit in support of the Restoration Goal. Thus the constraint on flood control releases below Sack Dam will directly translate to a constraint on benefits to the Restoration Goal below Sack Dam.

Accordingly, I am revising my Restoration Flow Recommendation to reflect the limitation on flood control releases below Sack Dam for the month of June.

Additional Considerations

The focus of this year's Restoration Flow releases continue to be:

1. Continuing year-round connectivity of the river from Friant Dam to the Merced River confluence;
2. Maximizing Restoration Flow releases as necessary to achieve Restoration Goal, within flow constraint limitations, limited only by the limiting flow constraint between Friant Dam and the Merced River;
3. Continuing to refine coordination and operations of the Restoration Program in conjunction with operations on the San Joaquin River.

This updated Recommendation assumes a loss of 80 cfs from Gravelly Ford (GRF) to Mendota Pool, and a 5% loss through Mendota Pool to Sack Dam.

Based on past operational experience, a target release of 100 cfs of flood control flows past Sack Dam may vary above or below that target by as much as 50 cfs.

Flood control releases into the San Joaquin River commenced in January, and are expected to extend through at least June. As a result, the 240 cfs of recommended Restoration Flows at GRF are included in the flood control release, but flood control releases are much higher than the Restoration Flow specification. Flood control releases of at least 100 cfs are anticipated to continue below Sack Dam through June 30, 2017.

Recommendation

Restoration Flow recommendations will continue to be updated in response to subsequent Allocations, flood control releases, and other changing conditions. At this time, I am recommending the following Restoration Flows for 2017:

- The best anticipated flood control release schedule for Friant Dam calls for releases to the river through at least June to accomplish management of reservoir inflows and evacuation of flood space.
- Until the end of June, target 245 cfs (240 cfs of Restoration Flows) at Gravelly Ford, which should yield up to 152 cfs of Restoration Flows at Sack Dam to match or exceed the target of 100 cfs of flood control releases below Sack Dam. This assumes Exhibit B riparian contract demands in Reach 1 and seepage losses in Reach 2, and a negotiated 5% loss rate through the Mendota Pool complex. Maintain these target flow levels through June 30, 2017.
- From July 1, 2017 through February 28, 2018, target the Exhibit B GRF flows (and associated Sack Dam flows) for a Wet water year type:

Date Range	***GRF Target***	***Sack Dam Target***
July 1 – Aug 31	125 cfs	43 cfs
Sept 1 – Sept 30	145 cfs	62 cfs
Oct 1 – Oct 31	195 cfs	109 cfs
Nov 1 – Nov 10	575 cfs	451 cfs
Nov 11 – Dec 31	235 cfs	147 cfs
Jan 1 – Feb 28	255 cfs	166 cfs

- I will work closely with Reclamation and river operators to adjust Restoration Flows as needed, anticipating adjustments in Restoration Flow releases due to seepage constraints and variations in seepage losses as a result of groundwater levels. Flow releases from Friant Dam will be adjusted up or down as needed to achieve targets at Gravelly Ford and Sack Dam.

- I will potentially revise the Fall Pulse Flow release later in the summer after observing Delta and Lower San Joaquin River conditions, and consulting with TAC and Program fisheries biologists.
- In the event that flow bench evaluations dictate that seepage impacts are of concern, Restoration Flows prior to June 30 may be revised downward.
- The January 31 and April 21 Restoration Flow recommendation produced 358,729 acre-feet of URF's, all of which were released and largely disposed of by Reclamation.
- This Updated Recommendation will produce approximately 6,000 acre-feet of additional URF's, which may be released immediately for disposition by Reclamation.

Additional Consultation

I will continue to coordinate with the TAC, Program Office, and technical study leads to monitor hydrologic conditions, fishery conditions, flood control releases, operational conditions, and other factors. I look forward to Reclamation's additional Restoration Flow allocations, and managing the anticipated high runoff situation.